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## Changes in trends and pattern of strong opioid prescribing in primary care (Article)

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### Abstract

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**Background** This study evaluated the prescribing trends of four commonly prescribed strong opioids in primary care and explored utilization in non-cancer and cancer users. **Methods** This cross-sectional study was conducted from 2000 to 2010 using the UK Clinical Practice Research Datalink. Prescriptions of buprenorphine, fentanyl, morphine and oxycodone issued to adult patients were included in this study. Opioid prescriptions issued after patients had cancer medical codes were defined as cancer-related use; otherwise, they were considered non-cancer use. Annual number of prescriptions and patients, defined daily dose (DDD)/1000 inhabitants/day) and oral morphine equivalent (OMEQ) dose were measured in repeat cross-sectional estimates. **Results** In total, there were 2,672,022 prescriptions (87.8% for non-cancer) of strong opioids for 178,692 users (59.9% female, 83.9% non-cancer, mean age 67.1±17.0 years) during the study period. The mean annual (DDD/1000 inhabitants/day) was higher in the non-cancer group than in the cancer group for all four opioids; morphine (0.73±0.28 vs. 0.12±0.04), fentanyl (0.46±0.29 vs. 0.06±0.24), oxycodone (0.24±0.19 vs. 0.038±0.028) and buprenorphine (0.23±0.15 vs. 0.008±0.006). The highest proportion of patients were prescribed low opioid doses (OMEQ≤50-mg/day) in both non-cancer (50.3%) and cancer (39.9%) groups, followed by the dose ranks of 51-100-mg/day (26.2% vs. 28.7%), 101-200-mg/day (15.1% vs. 19.2%) and >200-mg/day (8.25% vs. 12.1%). **Conclusions** There has been a huge increase in strong opioid prescribing in the United Kingdom, with the majority of prescriptions for non-cancer pain. Morphine was the most frequently prescribed, but the utilization of oxycodone, buprenorphine and fentanyl increased markedly over time. © 2014 The Authors. European Journal of Pain published by John Wiley & Sons Ltd on behalf of European Pain Federation - EFIC®.

### Indexed keywords

#### EMTREE drug terms:

buprenorphine fentanyl morphine oxycodone buprenorphine fentanyl morphine  
narcotic analgesic agent oxycodone

#### EMTREE medical terms:

adult aged Article cancer pain controlled study cross-sectional study female human  
low drug dose major clinical study male prescription primary medical care retrospective study  
United Kingdom very elderly adolescent clinical practice drug utilization epidemiology middle aged  
pain prescription primary health care statistics and numerical data trends young adult

#### MeSH:

Adolescent Adult Aged Aged, 80 and over Analgesics, Opioid Buprenorphine  
Cross-Sectional Studies Drug Prescriptions Drug Utilization Female Fentanyl Great Britain  
Humans Male Middle Aged Morphine Oxycodone Pain Physician's Practice Patterns  
Primary Health Care Young Adult

### Chemicals and CAS Registry Numbers:

buprenorphine, 52485-79-7, 53152-21-9; fentanyl, 437-38-7; morphine, 52-26-6, 57-27-2; oxycodone, 124-90-3, 76-42-6;

Analgesics, Opioid; Buprenorphine; Fentanyl; Morphine; Oxycodone

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